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EQUIPMENT FOR CONTINUOUS GROWTH
OF SILICON CRYSTAL RIBBON

Abstract:

PURPOSE: Granular silicon particles and a dopant are mixed to be used as the starting material for crystal growth and the mixture is stirred in the feed tank, whereby continuous growth of silicon crystal ribbons is effected safely in low costs.

CONSTITUTION: In the equipment for continuous growth of silicon crystal ribbon, as the starting material, granular silicon particles A which has been formed in a fluid bed is used, and the particles are mixed with silicon particles B, as a dopant, containing elements for controlling resistivity. The mixing ratio A/B is set more than 1/1500 and the feed tank for containing the mixture is provided with a stirrer to effect agitation. Thus, the continuous growth of silicon crystal ribbon can be effected almost without thermal fluctuation in the furnace, even if the feedstock are supplied to the furnace, while the ribbon is pulled up.

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